United States Environmental Protection Agency
Region 5 77 West Jackson Blvd. Chicago, Illinois 60604
Illinois, Indiana Michigan, Minnesota Ohio, Wisconsin

Lammars Barrel Factory Superfund Site

Beavercreek, Ohio **August 1997**

Introduction

The U.S. Environmental Protection Agency (U.S. EPA), in consultation with the Ohio Environmental Protection Agency (Ohio EPA) and the Ohio Department of Health (ODH), is investigating the Lammars Barrel Factory Superfund site ("Lammars site" or "site") located at 3990 E. Patterson Road, the northeast corner of the intersection of Grange-Hall and East Patterson Roads, in Beavercreek, Greene County, Ohio. The site is located in a mixed commercial and residential area. Most of the homes and businesses in the area use private wells for drinking water.

An Engineering Evaluation/Cost Analysis (EE/CA) is being conducted at the site. The EE/CA consists of data gathering (soil, ground water and sediment sampling), risk assessment and a comparison of clean-up options. U.S.EPA will then make a proposed clean-up decision and document that decision in an Action Memorandum. Before the Action Memorandum is finalized, the public will have an opportunity to comment on the proposed clean-up decision.

Field work for the EE/CA is substantially complete, and the Agencies have completed a preliminary draft EE/CA report. The purpose of this fact sheet is to update you on the results of the ground water investigation.

Historic Residential Well Contamination

In 1985 following published reports of contaminated wells along Dayton-Xenia Road, one mile to the north of the site, several residents living along E. Patterson Road had their well water tested for *Volatile Organic Compounds (VOCs)*. One well contained VOCs. In response to this contamination, an additional 93 wells in the vicinity of the site were sampled for VOCs. Several VOCs were detected in wells, but the one of most concern was vinyl chloride. *Vinyl chloride* is a known human carcinogen and was detected at levels significantly above the *Maximum Contaminant Level (MCL)*. MCLs, established under the Safe Drinking Water Act, are chemical levels which cannot be exceeded for long periods of time in community water supplies. Agencies use MCLs as a guide when evaluating the safety of water from private or residential wells. MCLs are based on long-term human health risks and economic factors such as laboratory analytical detection limits, persistence of chemicals and ease of removing some chemicals from water. The MCL for vinyl chloride is 2 parts per billion (ppb); the highest level detected in a residential well in the mid-1980's was 320 ppb.

Because the levels of vinyl chloride were very high, the Ohio National Guard provided 350-gallon mobile water tanks for emergency water supplies to five homes along E. Patterson Road. In November 1985, U.S.EPA provided temporary water lines and extended municipal water lines to the nine residents with MCL exceedences. Currently, county water mains extend down Grange Hall Road, E. Patterson Road, Kenora Circle, the north end of Stanwick Drive, and Tralee Trail.

Re-sampling of a limited number of residential wells was completed in 1986, 1988 and 1991. Wells that were previously contaminated with VOCs still contained VOCs.

Recent Residential Sampling Results

During March and June, 1997, U.S.EPA collected a total of 57 residential well samples.

All the samples were analyzed for VOCs. The purpose of the sampling was to determine the extent of the ground water contamination, not to locate specific residences with water quality problems. Therefore many residences that are currently connected to the county water supply but still have a private well were tested. Figure 10 is a map showing all residences connected to county water. Results of the sampling are presented in Figure 2-11. Note that some of the wells with contamination are residences that are currently using county water. Figure 2-12 shows where MCL exceedences occurred.

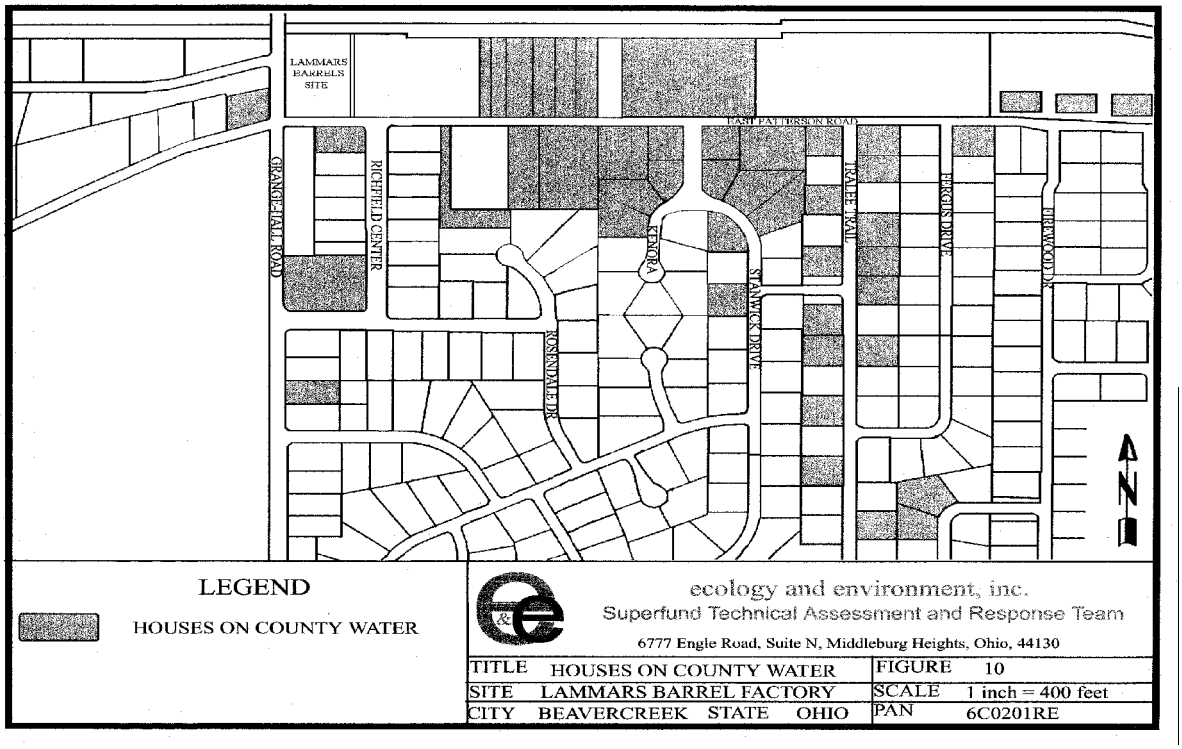
The highest level of vinyl chloride detected was 103 ppb, lower than in the mid-1980's but much higher than would be safe to drink. Vinyl chloride was only detected in wells that historically contained vinyl chloride and these residences use county water. The Agencies are now concerned with *trichloroethylene (TCE)* that was recently detected in a few residential wells. TCE is a probable human carcinogen and, as with other VOCs, can be ingested (i.e. by drinking water) and inhaled (i.e. through showering). The highest level of TCE found was 13 ppb; the MCL for TCE is 5 ppb.

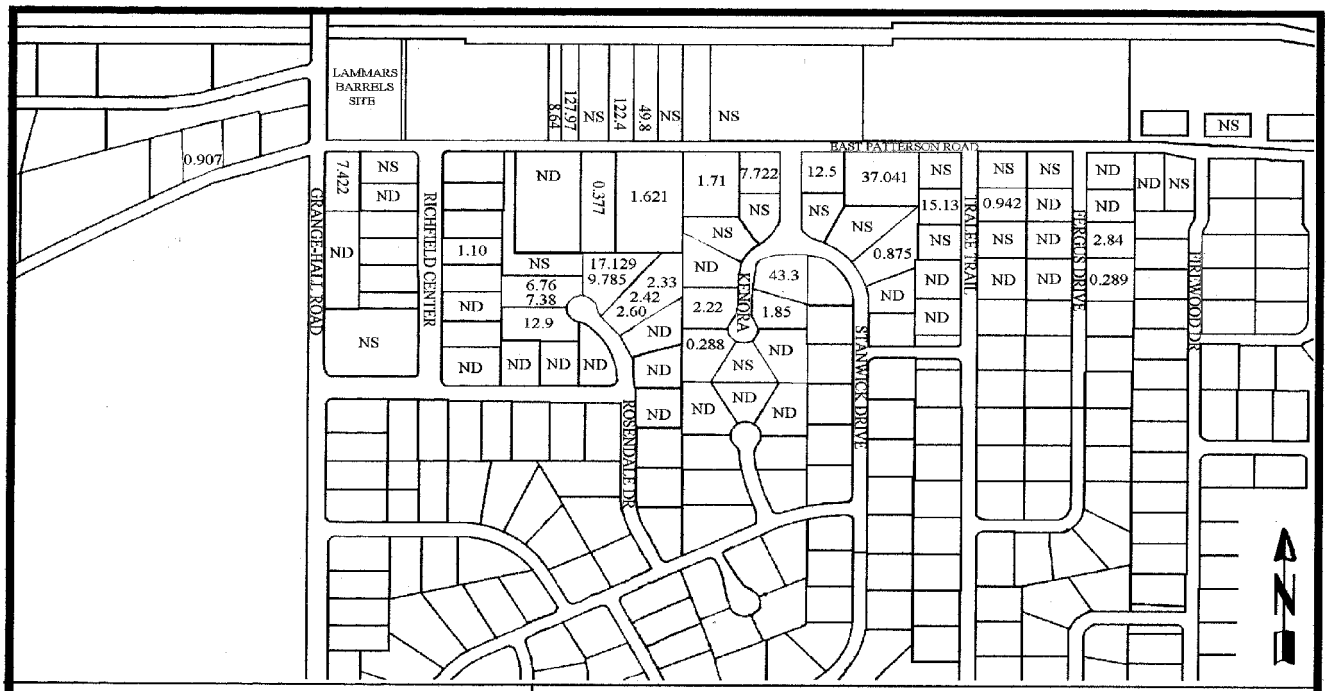
Although the levels of TCE are above the MCL, the levels are considered to be low and therefore U.S.EPA will not be taking any emergency measures to provide alternate water to homes with an MCL exceedence at this time.

U.S.EPA will complete the EE/CA, the study of contamination and clean-up options for the site, and then determine if there is an unacceptable risk to human health from drinking water with low levels of TCE such that an alternate water or filtration systems would be warranted. U.S.EPA should have a final EE/CA report by October. In the meantime, if you are concerned about the quality of your water, contact any of the individuals noted at the end of this fact sheet.

Ground Water Quality at the Site

Four ground water monitoring wells were installed on the site. Because contamination by inorganic chemicals was found in some of the on-site monitoring wells, U.S.EPA will sample approximately 13 residential wells for *inorganic* contamination in the near future. If your well was selected for sampling you will receive a letter in the mail requesting permission to sample the well at a designated time.



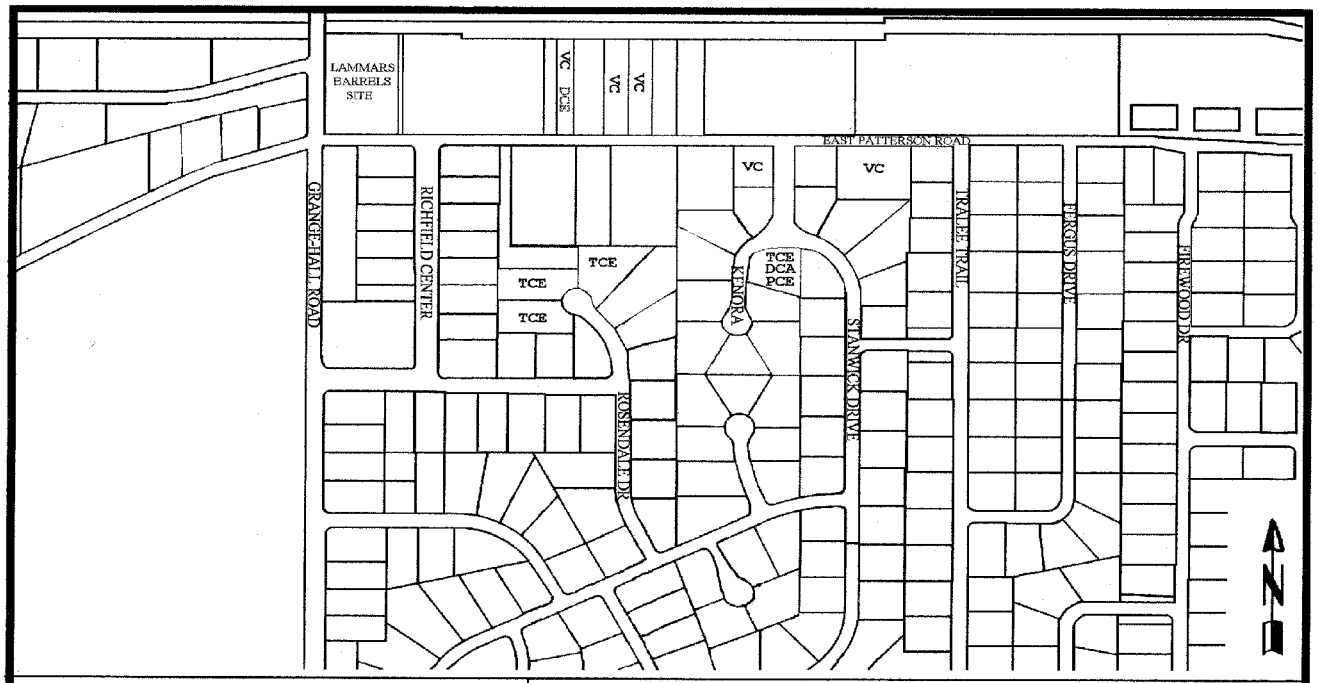


LEGEND

#	Total VOC Concentrations in ppb
NS	Not Sampled
ND	Not Detected

ecology and environment, inc.
Superfund Technical Assessment and Response Team
6777 Engle Road, Suite N, Middleburg Heights, Ohio, 44130

TITLE	Total VOC Concentrations	FIGURE	2-11
SITE	Lammars Barrel Factory	SCALE	1 inch = 400 feet
CITY	Beavercreek STATE Ohio	PAN	6C0201RE



LEGEND

DCA	1,1-Dichloroethane
DCE	cis-1,2-Dichloroethene
PCE	Tetrachloroethene
TCE	Trichloroethene
VC	Vinyl Chloride

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TITLE	MCL Exceedances	FIGURE	2-12
SITE	Lammars Barrel Factory	SCALE	1 inch = 400 feet
CITY	Beavercreek STATE Ohio	PAN	6C0201RE

For Additional Information, please contact the following representatives:

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An Information Repository has been established at the Beavercreek Community Library, 3618 Dayton-Xenia Road. The repository contains documents pertaining to site investigations, health issues and general information about U.S.EPA's Superfund program.

Glossary

Carcinogen: Cancer causing chemical.

Maximum Contaminant Level: Maximum permissible level of a contaminant in water which is delivered to any user of a community water system.

Inorganic Compounds: Chemical compounds composed of mineral materials, including salts and metals such aluminum, iron, mercury, and zinc.

Trichloroethylene (TCE): A volatile organic compound used to remove grease from fabricated metal parts and some textiles. A probable human carcinogen.

Vinyl Chloride: A volatile organic compound used in the manufacture of electrical wire insulation and cables, piping, industrial and household equipment, medical supplies and is depended upon heavily by the rubber, paper, and glass industries. A known human carcinogen.

Volatile Organic Compounds (VOCs): Contaminants comprised of solvents, degreasers, paints, thinners and fuels that evaporate easily into the air. Includes TCE and vinyl chloride.

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